

Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 Stantec 1060 Andrew Drive Suite 140 West Chester PA 19380

Report Date: January 31, 2017

Project: MHIC

Submittal Date: 01/19/2017 Group Number: 1756832 PO Number: 213402428 State of Sample Origin: PA

	Lancaster Labs
Client Sample Description	<u>(LL) #</u>
TB-20170118 Water	8797795
MH-A-1(3.0) Grab Soil	8797796
MH-A-2(5.0) Grab Soil	8797797
MH-A-3(3.0) Grab Soil	8797798
MH-A-4(2.0) Grab Soil	8797799
MH-A-5(3.0) Grab Soil	8797800
MH-A-6(2.0) Grab Soil	8797801
MH-A-7(3.0) Grab Soil	8797802
MH-A-8(5.0) Grab Soil	8797803
MH-A-9(3.0) Grab Soil	8797804
MH-A-10(2.0) Grab Soil	8797805
MH-A-10(3.0) Grab Soil	8797806
MH-A-11(5.0) Grab Soil	8797807
MH-A-12(2.0) Grab Soil	8797808
MH-A-12(3.0) Grab Soil	8797809
MH-A-13(2.0) Grab Soil	8797810
MH-A-14(2.0) Grab Soil	8797811
MH-A-15(3.0) Grab Soil	8797812
MH-A-16(5.0) Grab Soil	8797813

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/. To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To Stantec Attn: Andrew Bradley Electronic Copy To Stantec Attn: Mark Schaeffer

Analysis Report

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Respectfully Submitted,

Amek Carter Specialist

(717) 556-7252



Analysis Report

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Sample Description: TB-20170118 Water

213402428

LL Sample # WW 8797795 LL Group # 1756832 Account # 16657

Project Name: MHIC

Collected: 01/12/2017

Stantec

1060 Andrew Drive

Suite 140

Suite 140

Submitted: 01/19/2017 16:40 Reported: 01/31/2017 19:40

West Chester PA 19380

TB018

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/1	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	Isopropylbenzene	98-82-8	N.D.	0.5	1
10945	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10945	Naphthalene	91-20-3	N.D.	1	1
10945	Toluene	108-88-3	N.D.	0.5	1
10945	1,2,4-Trimethylbenzene	95-63-6	N.D.	0.5	1
10945	1,3,5-Trimethylbenzene	108-67-8	N.D.	0.5	1
10945	Xylene (Total)	1330-20-7	N.D.	0.5	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	UST Unleaded + TMBs 8260B	SW-846 8260B	1	Z170232AA	01/23/2017 20:35	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	Z170232AA	01/23/2017 20:35	Hu Yang	1



Analysis Report

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Sample Description: MH-A-1(3.0) Grab Soil

213402428

LL Sample # SW 8797796 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Collected: 01/18/2017 08:40 by DH Stantec

1060 Andrew Drive

Drv

Suite 140

Reported: 01/31/2017 19:40 West Chester PA 19380

MHA01

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg	ug/kg	
10237	Benzene		71-43-2	N.D.	29	47.87
10237	Ethylbenzene		100-41-4	N.D.	58	47.87
10237	Isopropylbenzene		98-82-8	N.D.	58	47.87
10237	Methyl Tertiary Buty	/l Ether	1634-04-4	N.D.	29	47.87
10237	Naphthalene		91-20-3	N.D.	58	47.87
10237	Toluene		108-88-3	N.D.	58	47.87
10237	1,2,4-Trimethylbenze	ene	95-63-6	N.D.	58	47.87
10237	1,3,5-Trimethylbenze	ene	108-67-8	N.D.	58	47.87
10237	Xylene (Total)		1330-20-7	N.D.	58	47.87
Repor	rting limits were rai	sed due t	to interference from	m the sample matrix.		
GC Vol	latiles	SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil (C6-C12	n.a.	300	12	487.33
Wet Ch	nemistry	SW-846	9045D modified	Std. Units	Std. Units	
00394	pH in soil The pH was measured	in water	n.a. at 20.3 C.	8.06	0.0100	1
Wet Ch	nemistry	SM 2540	G-1997	%	%	
00111	Moisture		n.a.	17.9 08	0.50	1
	Moisture represents 103 - 105 degrees Coas-received basis.			ample after oven drying at reported is on an		

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	UST Unleaded 8260+TMBs (Soil)	SW-846 8260B	1	Q170301AA	01/30/2017 11:2	7 Kevin A Sposito	47.87
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201702144127	01/18/2017 08:4	O Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	1	201702144127	01/18/2017 08:4	O Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	2	201702144127	01/18/2017 08:4	O Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	17026A31B	01/28/2017 00:4	2 Marie D Beamenderfer	487.33



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Sample Description: MH-A-1(3.0) Grab Soil

213402428

LL Sample # SW 8797796 LL Group # 1756832 Account # 16657

Project Name: MHIC

Collected: 01/18/2017 08:40 by DH

1060 Andrew Drive

Suite 140

Stantec

Submitted: 01/19/2017 16:40 Reported: 01/31/2017 19:40

West Chester PA 19380

Laboratory Sample Analysis Record									
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor	
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201702144135	01/21/2017	15:18	Katelyn C Shober	n.a.	
00394	pH in soil	SW-846 9045D modified	1	17026039402A	01/26/2017	20:15	Luz M Groff	1	
00111	Moisture	SM 2540 G-1997	1	17027820003A	01/27/2017	13:29	Larry E Bevins	1	



Analysis Report

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Sample Description: MH-A-2(5.0) Grab Soil

213402428

LL Sample # SW 8797797 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 09:00 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

MHA02

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg	ug/kg	
10237	Benzene		71-43-2	N.D.	0.4	0.73
10237	Ethylbenzene		100-41-4	N.D.	0.9	0.73
10237	Isopropylbenzene		98-82-8	N.D.	0.9	0.73
10237	Methyl Tertiary Buty	yl Ether	1634-04-4	N.D.	0.4	0.73
10237	Naphthalene		91-20-3	N.D.	0.9	0.73
10237	Toluene		108-88-3	N.D.	0.9	0.73
10237	1,2,4-Trimethylbenze	ene	95-63-6	N.D.	0.9	0.73
10237	1,3,5-Trimethylbenze	ene	108-67-8	N.D.	0.9	0.73
10237	Xylene (Total)		1330-20-7	N.D.	0.9	0.73
GC Vol	latiles	SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil	C6-C12	n.a.	2.4	0.6	24.34
Wet Ch	nemistry	SW-846	9045D modified	Std. Units	Std. Units	
00394	pH in soil The pH was measured	in water	n.a. at 20.3 C.	7.73	0.0100	1
Wet Ch	nemistry	SM 2540	G-1997	%	%	
00111	Moisture		n.a.	18.4 Q8	0.50	1
	Moisture represents 103 - 105 degrees Coas-received basis.			ample after oven drying at reported is on an		

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	UST Unleaded 8260+TMBs (Soil)	SW-846 8260B	1	X170301AA	01/30/2017 15:3	1 Linda C Pape	0.73
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201702144127	01/18/2017 09:0	00 Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	1	201702144127	01/18/2017 09:0	00 Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	2	201702144127	01/18/2017 09:0	00 Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B	1	17026A31A	01/26/2017 18:4	18 Marie D	24.34



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Sample Description: MH-A-2(5.0) Grab Soil

213402428

LL Sample # SW 8797797 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 09:00 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor		
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201702144135	01/21/2017	15:24	Katelyn C Shober	n.a.		
00394	pH in soil	SW-846 9045D modified	1	17026039402A	01/26/2017	20:15	Luz M Groff	1		
00111	Moisture	SM 2540 G-1997	1	17027820003A	01/27/2017	13:29	Larry E Bevins	1		



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Sample Description: MH-A-3(3.0) Grab Soil

213402428

LL Sample # SW 8797798 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 09:20 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

MHA03

CAT No.	Analysis Name		CAS Number	Dry Result	t	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg		ug/kg	
10237	Benzene		71-43-2	N.D.		0.4	0.72
10237	Ethylbenzene		100-41-4	N.D.		0.9	0.72
10237	Isopropylbenzene		98-82-8	N.D.		0.9	0.72
10237	Methyl Tertiary Buty	yl Ether	1634-04-4	N.D.		0.4	0.72
10237	Naphthalene		91-20-3	0.9	J	0.9	0.72
10237	Toluene		108-88-3	N.D.		0.9	0.72
10237	1,2,4-Trimethylbenze	ene	95-63-6	N.D.		0.9	0.72
10237	1,3,5-Trimethylbenze	ene	108-67-8	N.D.		0.9	0.72
10237	Xylene (Total)		1330-20-7	1	J	0.9	0.72
GC Vol	latiles	SW-846	8015B modified	mg/kg		mg/kg	
01725	TPH-GRO N. CA soil	C6-C12	n.a.	100		6.0	248.02
Wet Ch	nemistry	SW-846	9045D modified	Std. T	Units	Std. Units	
00394	pH in soil The pH was measured	in water	n.a. at 20.2 C.	8.08		0.0100	1
Wet Ch	nemistry	SM 2540	G-1997	8		%	
00111	Moisture		n.a.	18.0 0	28	0.50	1
	Moisture represents 103 - 105 degrees Coas-received basis.				after oven drying at ed is on an		

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	•	Analyst	Dilution Factor
10237	UST Unleaded 8260+TMBs (Soil)	SW-846 8260B	1	X170302AA	01/31/2017 0	04:23	Stephen C Nolte	0.72
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201702144127	01/18/2017 0	9:20	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	1	201702144127	01/18/2017 0	9:20	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	2	201702144127	01/18/2017 0	9:20	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B	1	17026A31B	01/27/2017 2	21:35	Marie D Beamenderfer	248.02



Analysis Report

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Sample Description: MH-A-3(3.0) Grab Soil

213402428

LL Sample # SW 8797798 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 09:20 by DH

1060 Andrew Drive

Suite 140

Stantec

West Chester PA 19380

Laboratory Sample Analysis Record									
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor	
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201702144135	01/21/2017	15:09	Katelyn C Shober	n.a.	
00394	pH in soil	SW-846 9045D modified	1	17026039402A	01/26/2017	20:15	Luz M Groff	1	
00111	Moisture	SM 2540 G-1997	1	17027820003A	01/27/2017	13:29	Larry E Bevins	1	



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Sample Description: MH-A-4(2.0) Grab Soil

213402428

LL Sample # SW 8797799 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 09:40 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

MHA04

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg	ug/kg	
10237	Benzene		71-43-2	N.D.	31	52.47
10237	Ethylbenzene		100-41-4	N.D.	63	52.47
10237	Isopropylbenzene		98-82-8	N.D.	63	52.47
10237	Methyl Tertiary Buty	/l Ether	1634-04-4	N.D.	31	52.47
10237	Naphthalene		91-20-3	N.D.	63	52.47
10237	Toluene		108-88-3	N.D.	63	52.47
10237	1,2,4-Trimethylbenze	ene	95-63-6	N.D.	63	52.47
10237	1,3,5-Trimethylbenze	ene	108-67-8	N.D.	63	52.47
10237	Xylene (Total)		1330-20-7	N.D.	63	52.47
Repor	rting limits were rai	sed due t	o interference from	m the sample mat	crix.	
GC Vol	latiles	SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil (C6-C12	n.a.	14	5.9	245.82
Wet Ch	nemistry	SW-846	9045D modified	Std. Units	Std. Units	
00394	pH in soil The pH was measured	in water	n.a. at 20.1 C.	4.57	0.0100	1
Wet Ch	nemistry	SM 2540	G-1997	%	%	
00111	Moisture		n.a.	16.4 Q8	0.50	1
	Moisture represents 103 - 105 degrees Ce as-received basis.					

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	UST Unleaded 8260+TMBs (Soil)	SW-846 8260B	1	Q170301AA	01/30/2017 12:12	Kevin A Sposito	52.47
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201702144127	01/18/2017 09:40	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	1	201702144127	01/18/2017 09:40	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	2	201702144127	01/18/2017 09:40	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	17026A31B	01/27/2017 23:23	Marie D Beamenderfer	245.82



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Sample Description: MH-A-4(2.0) Grab Soil

213402428

LL Sample # SW 8797799 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 09:40 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

	Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ne	Analyst	Dilution Factor			
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201702144135	01/21/2017	15:27	Katelyn C Shober	n.a.			
00394	pH in soil	SW-846 9045D modified	1	17026039402B	01/26/2017	20:15	Luz M Groff	1			
00111	Moisture	SM 2540 G-1997	1	17027820003A	01/27/2017	13:29	Larry E Bevins	1			



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-5(3.0) Grab Soil

213402428

LL Sample # SW 8797800 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 10:00 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

Drv

MHA05

CAT No.	Analysis Name		CAS Number	Dry Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg	ug/kg	
10237	Benzene		71-43-2	N.D.	29	46.48
10237	Ethylbenzene		100-41-4	N.D.	58	46.48
10237	Isopropylbenzene		98-82-8	N.D.	58	46.48
10237	Methyl Tertiary Buty	/l Ether	1634-04-4	N.D.	29	46.48
10237	Naphthalene		91-20-3	N.D.	58	46.48
10237	Toluene		108-88-3	N.D.	58	46.48
10237	1,2,4-Trimethylbenze	ene	95-63-6	N.D.	58	46.48
10237	1,3,5-Trimethylbenze	ene	108-67-8	N.D.	58	46.48
10237	Xylene (Total)		1330-20-7	N.D.	58	46.48
Repor	rting limits were rai	sed due to	o interference from	m the sample matrix.		
GC Vol	latiles	SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil C Reporting limits wer		n.a. due to sample foam	12 J ning.	12	467.29
Wet Ch	nemistry	SW-846	9045D modified	Std. Units	Std. Units	
00394	pH in soil The pH was measured	in water	n.a. at 20.4 C.	11.2 J	0.0100	1
Wet Ch	nemistry	SM 2540	G-1997	%	8	
00111	Moisture		n.a.	20.5 Q8	0.50	1
	Moisture represents 103 - 105 degrees Ce as-received basis.			sample after oven drying reported is on an	at	

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	UST Unleaded 8260+TMBs (Soil)	SW-846 8260B	1	Q170301AA	01/30/2017 12:35	Kevin A Sposito	46.48
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201702144127	01/18/2017 10:00	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	1	201702144127	01/18/2017 10:00	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	2	201702144127	01/18/2017 10:00	Client Supplied	1



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Sample Description: MH-A-5(3.0) Grab Soil

213402428

LL Sample # SW 8797800 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 10:00 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

MHA05

Laboratory Sample Analysis Record Method Trial# Batch# CAT Analysis Name Analysis Analyst Dilution Date and Time 01725 TPH-GRO N. CA soil C6-C12 SW-846 8015B 17026A31B 01/28/2017 00:06 Marie D 467.29 Beamenderfer modified 01150 GC - Bulk Soil Prep 201702144135 01/21/2017 15:14 SW-846 5035A Katelyn C Shober n.a. ${\tt Modified}$ 00394 pH in soil SW-846 9045D 17026039402B 01/26/2017 20:15 Luz M Groff modified SM 2540 G-1997 00111 Moisture 17029820001A 01/30/2017 10:24 William C Schwebel 1



Analysis Report

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Sample Description: MH-A-6(2.0) Grab Soil

213402428

LL Sample # SW 8797801 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Collected: 01/18/2017 10:40 by DH Stantec

1060 Andrew Drive

Drv

Suite 140

Reported: 01/31/2017 19:40 West Chester PA 19380

MHA06

CAT No.	Analysis Name		CAS Number	Dry Result		Method Detection Limit	Dilution Factor
GC/MS	Volatiles SW-	846 826	0B	ug/kg		ug/kg	
10237	Benzene		71-43-2	N.D.		41	71.31
10237	Ethylbenzene		100-41-4	N.D.		83	71.31
10237	Isopropylbenzene		98-82-8	N.D.		83	71.31
10237	Methyl Tertiary Butyl Et	her	1634-04-4	N.D.		41	71.31
10237	Naphthalene		91-20-3	N.D.		83	71.31
10237	Toluene		108-88-3	330	J	83	71.31
10237	1,2,4-Trimethylbenzene		95-63-6	360	J	83	71.31
10237	1,3,5-Trimethylbenzene		108-67-8	170	J	83	71.31
10237	Xylene (Total)		1330-20-7	280	J	83	71.31
Repo	rting limits were raised	due to in	terference fro	m the sam	mple matrix.		
GC Vo	latiles SW-	846 801	5B modified	mg/kg		mg/kg	
01725	TPH-GRO N. CA soil C6-C7 Reporting limits were ra		n.a. to sample foam	N.D. ning.		5.6	241.78
Wet C	hemistry SW-	846 904	5D modified	Std. Un	its	Std. Units	
00394	pH in soil The pH was measured in v	water at 2	n.a. 20.1 C.	11.8	J	0.0100	1
Wet C	hemistry SM	2540 G-	1997	%		%	
	Moisture Moisture represents the 103 - 105 degrees Celsiu as-received basis.				ter oven drying at	0.50	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	UST Unleaded 8260+TMBs (Soil)	SW-846 8260B	1	Q170301AA	01/30/2017 12:58	Kevin A Sposito	71.31
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201702144127	01/18/2017 10:40	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	1	201702144127	01/18/2017 10:40	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	2	201702144127	01/18/2017 10:40	Client Supplied	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-6(2.0) Grab Soil

213402428

LL Sample # SW 8797801 LL Group # 1756832 Account # 16657

Project Name: MHIC

Collected: 01/18/2017 10:40 by DH

1060 Andrew Drive

Suite 140

Stantec

Suite 140

Submitted: 01/19/2017 16:40 Reported: 01/31/2017 19:40

West Chester PA 19380

	Laboratory Sample Analysis Record									
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor		
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	17026A31B	01/27/2017	19:28	Marie D Beamenderfer	241.78		
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201702144135	01/21/2017	15:25	Katelyn C Shober	n.a.		
00394	pH in soil	SW-846 9045D modified	1	17026039402B	01/26/2017	20:15	Luz M Groff	1		
00111	Moisture	SM 2540 G-1997	1	17027820003A	01/27/2017	13:29	Larry E Bevins	1		



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-7(3.0) Grab Soil

213402428

LL Sample # SW 8797802 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Collected: 01/18/2017 10:50 by DH Stantec

1060 Andrew Drive

Suite 140

Reported: 01/31/2017 19:40 West Chester PA 19380

MHA07

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg	ug/kg	
10237	Benzene		71-43-2	N.D.	0.5	0.89
10237	Ethylbenzene		100-41-4	N.D.	1	0.89
10237	Isopropylbenzene		98-82-8	N.D.	1	0.89
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	0.89
10237	Naphthalene		91-20-3	N.D.	1	0.89
10237	Toluene		108-88-3	N.D.	1	0.89
10237	1,2,4-Trimethylbenz	ene	95-63-6	N.D.	1	0.89
10237	1,3,5-Trimethylbenz	ene	108-67-8	N.D.	1	0.89
10237	Xylene (Total)		1330-20-7	1 J	1	0.89
GC Vol	latiles	SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil	C6-C12	n.a.	6.6	0.6	23.7
Wet Ch	nemistry	SW-846	9045D modified	Std. Units	Std. Units	
00394	pH in soil The pH was measured	in water	n.a. at 20.2 C.	7.78	0.0100	1
Wet Ch	nemistry	SM 2540	G-1997	%	%	
00111				15.4 Q8 ample after oven drying at reported is on an	0.50	1

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	UST Unleaded 8260+TMBs (Soil)	SW-846 8260B	1	X170301AA	01/30/2017 15:54	Linda C Pape	0.89
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201702144127	01/18/2017 10:50	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	1	201702144127	01/18/2017 10:50	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	2	201702144127	01/18/2017 10:50	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B	1	17026A31A	01/26/2017 23:08	Marie D	23.7



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-7(3.0) Grab Soil

213402428

LL Sample # SW 8797802 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 10:50 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

	Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	a	Analyst	Dilution Factor			
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201702144135	01/21/2017 1	15:23	Katelyn C Shober	n.a.			
00394	pH in soil	SW-846 9045D modified	1	17026039402B	01/26/2017 2	20:15	Luz M Groff	1			
00111	Moisture	SM 2540 G-1997	1	17027820003A	01/27/2017 1	3:29	Larry E Bevins	1			



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-8(5.0) Grab Soil

213402428

LL Sample # SW 8797803 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 11:00 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

MHA08

CAT No.	Analysis Name		CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg		ug/kg	
10237	Benzene		71-43-2	1	J	0.5	0.88
10237	Ethylbenzene		100-41-4	2	J	1	0.88
10237	Isopropylbenzene		98-82-8	N.D.		1	0.88
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.		0.5	0.88
10237	Naphthalene		91-20-3	2	J	1	0.88
10237	Toluene		108-88-3	2	J	1	0.88
10237	1,2,4-Trimethylbenz	ene	95-63-6	3	J	1	0.88
10237	1,3,5-Trimethylbenz	ene	108-67-8	1	J	1	0.88
10237	Xylene (Total)		1330-20-7	12		1	0.88
GC Vol	TPH-GRO N. CA soil		8015B modified	mg/kg		mg/kg 12	483.09
Wet Ch	Reporting limits we nemistry		due to sample foam 9045D modified		nits	Std. Units	
00394	pH in soil The pH was measured	in water	n.a. at 20.2 C.	11.8	J	0.0100	1
Wet Ch	nemistry	SM 2540	G-1997	%		8	
00111	Moisture		n.a.	17.3 Q	8	0.50	1
	Moisture represents 103 - 105 degrees C as-received basis.						

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

	Laboratory Sample Analysis Record											
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor					
10237	UST Unleaded 8260+TMBs (Soil)	SW-846 8260B	1	X170301AA	01/30/2017 18:	:13 Linda C Pape	0.88					
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201702144127	01/18/2017 11:	:00 Client Supplied	1					
02392	L/H Field Preserved Bisulfate	SW-846 5035A	1	201702144127	01/18/2017 11:	:00 Client Supplied	1					
02392	L/H Field Preserved Bisulfate	SW-846 5035A	2	201702144127	01/18/2017 11:	:00 Client Supplied	1					
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	17026A31A	01/26/2017 18:	:12 Marie D Beamenderfer	483.09					



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-8(5.0) Grab Soil

213402428

LL Sample # SW 8797803 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 11:00 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tim	ıe	Analyst	Dilution Factor		
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201702144135	01/21/2017	15:11	Katelyn C Shober	n.a.		
00394	pH in soil	SW-846 9045D modified	1	17026039402B	01/26/2017	20:15	Luz M Groff	1		
00111	Moisture	SM 2540 G-1997	1	17027820003A	01/27/2017	13:29	Larry E Bevins	1		



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-9(3.0) Grab Soil

213402428

LL Sample # SW 8797804 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Collected: 01/18/2017 11:10 by DH Stantec

1060 Andrew Drive

Suite 140

Reported: 01/31/2017 19:40 West Chester PA 19380

MHA09

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg	ug/kg	
10237	Benzene		71-43-2	N.D.	0.5	0.87
10237	Ethylbenzene		100-41-4	N.D.	1	0.87
10237	Isopropylbenzene		98-82-8	N.D.	1	0.87
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	0.87
10237	Naphthalene		91-20-3	N.D.	1	0.87
10237	Toluene		108-88-3	N.D.	1	0.87
10237	1,2,4-Trimethylbenz	ene	95-63-6	N.D.	1	0.87
10237	1,3,5-Trimethylbenz	ene	108-67-8	N.D.	1	0.87
10237	Xylene (Total)		1330-20-7	N.D.	1	0.87
GC Vol	latiles	SW-846	8015B modified	mg/kg	mg/kg	
01725	TPH-GRO N. CA soil	C6-C12	n.a.	1.1 J	0.6	25.38
Wet Ch	nemistry	SW-846	9045D modified	Std. Units	Std. Units	
00394	pH in soil The pH was measured	in water	n.a. at 19.8 C.	5.93	0.0100	1
Wet Ch	nemistry	SM 2540	G-1997	%	%	
00111	Moisture		n.a.	13.5 Q8	0.50	1
	Moisture represents 103 - 105 degrees C as-received basis.			ample after oven drying at reported is on an		

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	UST Unleaded 8260+TMBs (Soil)	SW-846 8260B	1	X170301AA	01/30/2017 16:17	Linda C Pape	0.87
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201702144127	01/18/2017 11:10	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	1	201702144127	01/18/2017 11:10	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	2	201702144127	01/18/2017 11:10	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B	1	17026A31A	01/26/2017 23:44	Marie D	25.38



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-9(3.0) Grab Soil

213402428

LL Sample # SW 8797804 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 11:10 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor		
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201702144135	01/21/2017	15:26	Katelyn C Shober	n.a.		
00394	pH in soil	SW-846 9045D modified	1	17026039402B	01/26/2017	20:15	Luz M Groff	1		
00111	Moisture	SM 2540 G-1997	1	17027820003A	01/27/2017	13:29	Larry E Bevins	1		



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-10(2.0) Grab Soil

213402428

LL Sample # SW 8797805 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 11:25 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

MHA10

CAT No.	Analysis Name		CAS Number	Dry Result	Ė	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg		ug/kg	
10237	Benzene		71-43-2	N.D.		0.5	0.75
10237	Ethylbenzene		100-41-4	N.D.		1	0.75
10237	Isopropylbenzene		98-82-8	N.D.		1	0.75
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.		0.5	0.75
10237	Naphthalene		91-20-3	1	J	1	0.75
10237	Toluene		108-88-3	N.D.		1	0.75
10237	1,2,4-Trimethylbenz	ene	95-63-6	N.D.		1	0.75
10237	1,3,5-Trimethylbenz	ene	108-67-8	N.D.		1	0.75
10237	Xylene (Total)		1330-20-7	1	J	1	0.75
GC Vol	latiles	SW-846	8015B modified	mg/kg		mg/kg	
01725	TPH-GRO N. CA soil	C6-C12	n.a.	2.4		0.6	23.99
Wet Ch	nemistry	SW-846	9045D modified	Std. T	Jnits	Std. Units	
00394	pH in soil The pH was measured	in water	n.a. at 20 C.	6.75		0.0100	1
Wet Ch	nemistry	SM 2540	G-1997	%		%	
00111	Moisture		n.a.	21.9 🤉	28	0.50	1
	Moisture represents 103 - 105 degrees C as-received basis.				after oven drying at ed is on an		

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory	Sample	Analy	/sis	Record
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CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	,	Analyst	Dilution Factor
10237	UST Unleaded 8260+TMBs (Soil)	SW-846 8260B	1	X170302AA	01/31/2017 04:	:46	Stephen C Nolte	0.75
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201702144127	01/18/2017 11:	:25	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	1	201702144127	01/18/2017 11:	:25	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	2	201702144127	01/18/2017 11:	:25	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B	1	17026A31A	01/27/2017 00:		Marie D	23.99



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-10(2.0) Grab Soil

213402428

LL Sample # SW 8797805 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 11:25 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor		
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201702144135	01/21/2017	15:16	Katelyn C Shober	n.a.		
00394	pH in soil	SW-846 9045D modified	1	17026039402B	01/26/2017	20:15	Luz M Groff	1		
00111	Moisture	SM 2540 G-1997	1	17027820003A	01/27/2017	13:29	Larry E Bevins	1		



Analysis Report

Beamenderfer

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-10(3.0) Grab Soil

213402428

LL Sample # SW 8797806 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 11:35 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

MH103

CAT No.	Analysis Name		CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg		ug/kg	
10237	Benzene		71-43-2	N.D.		0.5	0.75
10237	Ethylbenzene		100-41-4	N.D.		0.9	0.75
10237	Isopropylbenzene		98-82-8	N.D.		0.9	0.75
10237	Methyl Tertiary Buty	yl Ether	1634-04-4	N.D.		0.5	0.75
10237	Naphthalene		91-20-3	3	J	0.9	0.75
10237	Toluene		108-88-3	N.D.		0.9	0.75
10237	1,2,4-Trimethylbenze	ene	95-63-6	N.D.		0.9	0.75
10237	1,3,5-Trimethylbenze	ene	108-67-8	N.D.		0.9	0.75
10237	Xylene (Total)		1330-20-7	3	J	0.9	0.75
	atiles		8015B modified	mg/kg		mg/kg	240.38
01725	Reporting limits we					5.0	240.30
Wet Ch	nemistry	SW-846	9045D modified	Std. U	nits	Std. Units	
00394	pH in soil The pH was measured	in water	n.a. at 20.3 C.	5.25		0.0100	1
Wet Ch	nemistry	SM 2540	G-1997	%		%	
00111	Moisture		n.a.	17.7		0.50	1
	Moisture represents 103 - 105 degrees Coas-received basis.						

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

modified

Laboratory Sample Analysis Record											
CAT No.	Analysis Name	Method		Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor		
10237	UST Unleaded 8260+TMBs (Soil)	SW-846	8260B	1	X170301AA	01/30/2017	18:36	Linda C Pape	0.75		
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846	5035A	1	201702144127	01/18/2017	11:35	Client Supplied	1		
02392	L/H Field Preserved Bisulfate	SW-846	5035A	1	201702144127	01/18/2017	11:35	Client Supplied	1		
02392	L/H Field Preserved Bisulfate	SW-846	5035A	2	201702144127	01/18/2017	11:35	Client Supplied	1		
01725	TPH-GRO N. CA soil C6-C12	SW-846	8015B	1	17026A31B	01/27/2017	22:11	Marie D	240.38		



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-10(3.0) Grab Soil

213402428

LL Sample # SW 8797806 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 11:35 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

MH103

	Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor				
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201702144135	01/21/2017 15:21	Katelyn C Shober	n.a.				
00394	pH in soil	SW-846 9045D modified	1	17026039402B	01/26/2017 20:15	Luz M Groff	1				
00111	Moisture	SM 2540 G-1997	1	17027820003B	01/27/2017 13:29	Larry E Bevins	1				



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-11(5.0) Grab Soil

213402428

LL Sample # SW 8797807 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 11:55 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

MHA11

CAT No.	Analysis Name		CAS Number	Dry Result	:	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg		ug/kg	
10237	Benzene		71-43-2	N.D.		0.8	1.13
10237	Ethylbenzene		100-41-4	N.D.		2	1.13
10237	Isopropylbenzene		98-82-8	N.D.		2	1.13
10237	Methyl Tertiary Buty	yl Ether	1634-04-4	N.D.		0.8	1.13
10237	Naphthalene		91-20-3	6	J	2	1.13
10237	Toluene		108-88-3	N.D.		2	1.13
10237	1,2,4-Trimethylbenze	ene	95-63-6	5	J	2	1.13
10237	1,3,5-Trimethylbenze	ene	108-67-8	2	J	2	1.13
10237	Xylene (Total)		1330-20-7	9		2	1.13
	latiles	010	8015B modified			mg/kg	
01725	TPH-GRO N. CA soil (Reporting limits we		n.a. due to sample foam	N.D.		6.6	240.62
Wet Ch	nemistry	SW-846	9045D modified	Std. T	Jnits	Std. Units	
00394	pH in soil The pH was measured	in water	n.a. at 19.9 C.	7.68		0.0100	1
Wet Ch	nemistry	SM 2540	G-1997	%		%	
00111	Moisture		n.a.	27.0		0.50	1
	Moisture represents 103 - 105 degrees Co as-received basis.						

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

	Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Tir	me	Analyst	Dilution Factor			
10237	UST Unleaded 8260+TMBs (Soil)	SW-846 8260B	1	X170302AA	01/31/2017	05:09	Stephen C Nolte	1.13			
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201702144127	01/18/2017	11:55	Client Supplied	1			
02392	L/H Field Preserved Bisulfate	SW-846 5035A	1	201702144127	01/18/2017	11:55	Client Supplied	1			
02392	L/H Field Preserved Bisulfate	SW-846 5035A	2	201702144127	01/18/2017	11:55	Client Supplied	1			
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	17026A31B	01/27/2017	22:47	Marie D Beamenderfer	240.62			



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-11(5.0) Grab Soil

213402428

LL Sample # SW 8797807 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 11:55 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

	Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor			
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201702144135	01/21/2017	15:20	Katelyn C Shober	n.a.			
00394	pH in soil	SW-846 9045D modified	1	17026039402B	01/26/2017	20:15	Luz M Groff	1			
00111	Moisture	SM 2540 G-1997	1	17027820003B	01/27/2017	13:29	Larry E Bevins	1			



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-12(2.0) Grab Soil

213402428

LL Sample # SW 8797808 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Collected: 01/18/2017 12:15 by DH Stantec

1060 Andrew Drive

Drv

Suite 140

Reported: 01/31/2017 19:40 West Chester PA 19380

MHA12

CAT No.	Analysis Name		CAS Number	Dry Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg	ug/kg	
10237	Benzene		71-43-2	N.D.	28	46.53
10237	Ethylbenzene		100-41-4	N.D.	57	46.53
10237	Isopropylbenzene		98-82-8	N.D.	57	46.53
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	28	46.53
10237	Naphthalene		91-20-3	N.D.	57	46.53
10237	Toluene		108-88-3	N.D.	57	46.53
10237	1,2,4-Trimethylbenze	ene	95-63-6	N.D.	57	46.53
10237	1,3,5-Trimethylbenze	ene	108-67-8	N.D.	57	46.53
10237	Xylene (Total)		1330-20-7	N.D.	57	46.53
Repo:	rting limits were rai	sed due t	o interference from	om the sample matrix.		
GC Vol	latiles	SW-846	8015B modified	l mg/kg	mg/kg	
01725	TPH-GRO N. CA soil (Reporting limits we		n.a. due to sample foa	10 J ming.	6.2	253.55
Wet Ch	nemistry	SW-846	9045D modified] Std. Units	Std. Units	
00394	pH in soil		n.a.	9.09	0.0100	1
	The pH was measured	ın water	at 20.1 C.			
Wet Ch	nemistry	SM 2540	G-1997	%	%	
00111	Moisture		n.a.	17.8	0.50	1
	Moisture represents 103 - 105 degrees Co as-received basis.			sample after oven drying a reported is on an	at	

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	UST Unleaded 8260+TMBs (Soil)	SW-846 8260B	1	Q170301AA	01/30/2017 14:06	Kevin A Sposito	46.53
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201702144127	01/18/2017 12:15	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	1	201702144127	01/18/2017 12:15	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	2	201702144127	01/18/2017 12:15	Client Supplied	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-12(2.0) Grab Soil

213402428

LL Sample # SW 8797808 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 12:15 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

	Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor			
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	17026A31B	01/27/2017	20:59	Marie D Beamenderfer	253.55			
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201702144135	01/21/2017	15:08	Katelyn C Shober	n.a.			
00394	pH in soil	SW-846 9045D modified	1	17026039402B	01/26/2017	20:15	Luz M Groff	1			
00111	Moisture	SM 2540 G-1997	1	17027820003B	01/27/2017	13:29	Larry E Bevins	1			



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-12(3.0) Grab Soil

213402428

LL Sample # SW 8797809 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Collected: 01/18/2017 12:25 by DH Stantec

1060 Andrew Drive

Suite 140

Reported: 01/31/2017 19:40 West Chester PA 19380

MH123

CAT No.	Analysis Name		CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg		ug/kg	
10237	Benzene		71-43-2	1	J	0.5	0.76
10237	Ethylbenzene		100-41-4	N.D.		0.9	0.76
10237	Isopropylbenzene		98-82-8	N.D.		0.9	0.76
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.		0.5	0.76
10237	Naphthalene		91-20-3	N.D.		0.9	0.76
10237	Toluene		108-88-3	1	J	0.9	0.76
10237	1,2,4-Trimethylbenz	ene	95-63-6	1	J	0.9	0.76
10237	1,3,5-Trimethylbenz	ene	108-67-8	N.D.		0.9	0.76
10237	Xylene (Total)		1330-20-7	3	J	0.9	0.76
GC Vol	latiles	SW-846	8015B modified	mg/kg		mg/kg	
01725	TPH-GRO N. CA soil	C6-C12	n.a.	12		0.6	23.76
Wet Ch	nemistry	SW-846	9045D modified	Std. U	nits	Std. Units	
00394	pH in soil The pH was measured	in water	n.a. at 20.1 C.	4.93		0.0100	1
Wet Ch	nemistry	SM 2540	G-1997	%		8	
00111	Moisture		n.a.	19.9		0.50	1
	Moisture represents 103 - 105 degrees C as-received basis.						

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
10237	UST Unleaded 8260+TMBs (Soil)	SW-846 8260B	1	X170301AA	01/30/2017 18:	:59	Linda C Pape	0.76
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201702144127	01/18/2017 12:	:25	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	1	201702144127	01/18/2017 12:	:25	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	2	201702144127	01/18/2017 12:	:25	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B	1	17026A31A	01/27/2017 01:	: 03	Marie D	23.76



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-12(3.0) Grab Soil

213402428

LL Sample # SW 8797809 LL Group # 1756832 Account # 16657

Project Name: MHIC

Collected: 01/18/2017 12:25 by DH Stantec

1060 Andrew Drive

Suite 140

Submitted: 01/19/2017 16:40 Reported: 01/31/2017 19:40

West Chester PA 19380

MH123

	Laboratory Sample Analysis Record									
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor			
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201702144135	01/21/2017 15:	15 Katelyn C Shober	n.a.			
00394	pH in soil	SW-846 9045D modified	1	17026039402B	01/26/2017 20:	15 Luz M Groff	1			
00111	Moisture	SM 2540 G-1997	1	17027820003B	01/27/2017 13:	29 Larry E Bevins	1			



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-13(2.0) Grab Soil

213402428

LL Sample # SW 8797810 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 12:35 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

MHA13

CAT No.	Analysis Name		CAS Number	Dry Result	:	Dry Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg		ug/kg	
10237	Benzene		71-43-2	N.D.		0.6	0.97
10237	Ethylbenzene		100-41-4	N.D.		1	0.97
10237	Isopropylbenzene		98-82-8	N.D.		1	0.97
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.		0.6	0.97
10237	Naphthalene		91-20-3	1	J	1	0.97
10237	Toluene		108-88-3	N.D.		1	0.97
10237	1,2,4-Trimethylbenz	ene	95-63-6	N.D.		1	0.97
10237	1,3,5-Trimethylbenz	ene	108-67-8	N.D.		1	0.97
10237	Xylene (Total)		1330-20-7	N.D.		1	0.97
GC Vol	latiles	SW-846	8015B modified	mg/kg		mg/kg	
01725	TPH-GRO N. CA soil	C6-C12	n.a.	N.D.		0.6	23.97
Wet Ch	nemistry	SW-846	9045D modified	Std. U	Jnits	Std. Units	
00394	pH in soil The pH was measured	in water	n.a. at 20.2 C.	3.90	J	0.0100	1
Wet Ch	nemistry	SM 2540	G-1997	%		%	
00111	Moisture		n.a.	17.2		0.50	1
	Moisture represents 103 - 105 degrees C as-received basis.				after oven drying at ed is on an		

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	UST Unleaded 8260+TMBs (Soil)	SW-846 8260B	1	X170301AA	01/30/2017 16:40	Linda C Pape	0.97
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201702144127	01/18/2017 12:35	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	1	201702144127	01/18/2017 12:35	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	2	201702144127	01/18/2017 12:35	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B	1	17026A31A	01/27/2017 01:38	Marie D Beamenderfer	23.97



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-13(2.0) Grab Soil

213402428

LL Sample # SW 8797810 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 12:35 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

MHA13

Laboratory Sample Analysis Record Method Trial# Batch# CAT Analysis Name Analysis Analyst Dilution Date and Time 01150 GC - Bulk Soil Prep 01/21/2017 15:12 Katelyn C Shober SW-846 5035A 201702144135 n.a. Modified 00394 pH in soil 17026039403A 01/26/2017 21:00 Luz M Groff 1 SW-846 9045D ${\tt modified}$ 00111 Moisture SM 2540 G-1997 17027820003B 01/27/2017 13:29 Larry E Bevins



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-14(2.0) Grab Soil

213402428

LL Sample # SW 8797811 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 12:45 by DH Stantec

1060 Andrew Drive

Dry

Suite 140

West Chester PA 19380

MHA14

CAT No.	Analysis Name		CAS Number	Dry Result	Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg	ug/kg	
10237	Benzene		71-43-2	N.D.	49	78.68
10237	Ethylbenzene		100-41-4	N.D.	97	78.68
10237	Isopropylbenzene		98-82-8	N.D.	97	78.68
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	49	78.68
10237	Naphthalene		91-20-3	N.D.	97	78.68
10237	Toluene		108-88-3	N.D.	97	78.68
10237	1,2,4-Trimethylbenz	ene	95-63-6	1,200	97	78.68
10237	1,3,5-Trimethylbenz	ene	108-67-8	720	97	78.68
10237	Xylene (Total)		1330-20-7	590	97	78.68
Repo:	rting limits were ra	ised due t	to interference fr	om the sample mat	crix.	
GC Vol	latiles	SW-846	8015B modifie	d mg/kg	mg/kg	
01725	TPH-GRO N. CA soil Reporting limits we		n.a. due to sample for	680 aming.	250	10330.58
Wet Cl	nemistry	SW-846	9045D modifie	d Std. Units	Std. Units	
00394	T		n.a.	7.09	0.0100	1
	The pH was measured	l in water	at 20.1 C.			
Wet Cl	nemistry	SM 2540	G-1997	%	%	
00111	Moisture		n.a.	18.9	0.50	1
	Moisture represents 103 - 105 degrees (as-received basis.					

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	UST Unleaded 8260+TMBs (Soil)	SW-846 8260B	1	Q170301AA	01/30/2017 15:16	Kevin A Sposito	78.68
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201702144127	01/18/2017 12:45	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	1	201702144127	01/18/2017 12:45	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	2	201702144127	01/18/2017 12:45	Client Supplied	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-14(2.0) Grab Soil

213402428

LL Sample # SW 8797811 LL Group # 1756832 Account # 16657

1

Project Name: MHIC

Collected: 01/18/2017 12:45 by DH

Modified

modified

SW-846 9045D

SM 2540 G-1997

1060 Andrew Drive

Suite 140

17026039403A

17027820003B

Stantec

West Chester PA 19380

Reported: 01/31/2017 19:40

Analysis Name

01150 GC - Bulk Soil Prep

00394 pH in soil

00111 Moisture

Submitted: 01/19/2017 16:40

MHA14

CAT

Laboratory Sample Analysis Record Method Trial# Batch# Analysis Analyst Dilution Date and Time 01725 TPH-GRO N. CA soil C6-C12 SW-846 8015B 17026A31B 01/27/2017 20:23 Marie D 10330.5 Beamenderfer modified 8 201702144135 01/21/2017 15:17 SW-846 5035A Katelyn C Shober n.a.

01/26/2017 21:00 Luz M Groff

01/27/2017 13:29 Larry E Bevins



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-15(3.0) Grab Soil

213402428

LL Sample # SW 8797812 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 12:55 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

MHA15

CAT No.	Analysis Name		CAS Number	Dry Result	:	Dry Method Detection Limit	Dilution Factor	
GC/MS	Volatiles	SW-846	8260B	ug/kg		ug/kg		
10237	Benzene		71-43-2	N.D.		0.6	1.02	
10237	Ethylbenzene		100-41-4	4	J	1	1.02	
10237	Isopropylbenzene		98-82-8	N.D.		1	1.02	
10237	Methyl Tertiary But	yl Ether	1634-04-4	N.D.		0.6	1.02	
10237	Naphthalene		91-20-3	3	J	1	1.02	
10237	Toluene		108-88-3	7		1	1.02	
10237	1,2,4-Trimethylbenz	ene	95-63-6	12		1	1.02	
10237	1,3,5-Trimethylbenz	ene	108-67-8	5	J	1	1.02	
10237	Xylene (Total)		1330-20-7	24		1	1.02	
GC Vol	atiles	SW-846	8015B modified	mg/kg		mg/kg		
01725	TPH-GRO N. CA soil Reporting limits we		n.a. due to sample foam	14 ing.	J	13	520.29	
Wet Ch	nemistry	SW-846	9045D modified	Std. U	Jnits	Std. Units		
00394	pH in soil The pH was measured	in water	n.a. at 19.7 C.	2.88	J	0.0100	1	
Wet Ch	nemistry	SM 2540	G-1997	%		%		
00111	Moisture		n.a.	20.3		0.50	1	
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.							

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record									
CAT No.	Analysis Name	Method		Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
10237	UST Unleaded 8260+TMBs (Soil)	SW-846	8260B	1	X170302AA	01/31/2017	01:41	Stephen C Nolte	1.02
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846	5035A	1	201702144127	01/18/2017	12:55	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846	5035A	1	201702144127	01/18/2017	12:55	Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846	5035A	2	201702144127	01/18/2017	12:55	Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 modifie		1	17026A31B	01/28/2017	01:18	Marie D Beamenderfer	520.29



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-15(3.0) Grab Soil

213402428

LL Sample # SW 8797812 LL Group # 1756832 Account # 16657

Project Name: MHIC

Collected: 01/18/2017 12:55 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

Reported: 01/31/2017 19:40

Submitted: 01/19/2017 16:40

MHA15

		Laborat	ory Sa	mple Analysi:	s Record		
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201702144135	01/21/2017 15:	19 Katelyn C Shobe	r n.a.
00394	pH in soil	SW-846 9045D modified	1	17026039403A	01/26/2017 21:	00 Luz M Groff	1
00111	Moisture	SM 2540 G-1997	1	17027820003B	01/27/2017 13:	29 Larry E Bevins	1



Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MH-A-16(5.0) Grab Soil

213402428

LL Sample # SW 8797813 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Collected: 01/18/2017 13:20 by DH Stantec

1060 Andrew Drive

Drv

Suite 140

Reported: 01/31/2017 19:40 West Chester PA 19380

MHA16

CAT No.	Analysis Name		CAS Number	Dry Result		Method Detection Limit	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/kg		ug/kg	
10237	Benzene		71-43-2	N.D.		0.5	0.81
10237	Ethylbenzene		100-41-4	1	J	1	0.81
10237	Isopropylbenzene		98-82-8	N.D.		1	0.81
10237	Methyl Tertiary Buty	yl Ether	1634-04-4	N.D.		0.5	0.81
10237	Naphthalene		91-20-3	N.D.		1	0.81
10237	Toluene		108-88-3	N.D.		1	0.81
10237	1,2,4-Trimethylbenze	ene	95-63-6	N.D.		1	0.81
10237	1,3,5-Trimethylbenze	ene	108-67-8	N.D.		1	0.81
10237	Xylene (Total)		1330-20-7	6		1	0.81
GC Vol	latiles	SW-846	8015B modified	mg/kg		mg/kg	
01725	TPH-GRO N. CA soil	C6-C12	n.a.	N.D.		0.6	25.05
Wet Ch	nemistry	SW-846	9045D modified	Std. Ur	nits	Std. Units	
00394	pH in soil The pH was measured	in water	n.a. at 20.1 C.	6.99		0.0100	1
Wet Ch	nemistry	SM 2540	G-1997	%		%	
00111	Moisture		n.a.	18.6		0.50	1
	Moisture represents 103 - 105 degrees Co as-received basis.						

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/17.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10237	UST Unleaded 8260+TMBs (Soil)	SW-846 8260B	1	X170302AA	01/31/2017 02:	04 Stephen C Nolte	0.81
07579	GC/MS-5g Field Preserv.MeOH-NC	SW-846 5035A	1	201702144127	01/18/2017 13:	20 Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	1	201702144127	01/18/2017 13:	20 Client Supplied	1
02392	L/H Field Preserved Bisulfate	SW-846 5035A	2	201702144127	01/18/2017 13:	20 Client Supplied	1
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B	1	17026A31A	01/27/2017 02:	15 Marie D Reamenderfer	25.05



Analysis Report

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Sample Description: MH-A-16(5.0) Grab Soil

213402428

LL Sample # SW 8797813 LL Group # 1756832 Account # 16657

Project Name: MHIC

Submitted: 01/19/2017 16:40

Reported: 01/31/2017 19:40

Collected: 01/18/2017 13:20 by DH Stantec

1060 Andrew Drive

Suite 140

West Chester PA 19380

MHA16

	Laboratory Sample Analysis Record							
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	e	Analyst	Dilution Factor
01150	GC - Bulk Soil Prep	SW-846 5035A Modified	1	201702144135	01/21/2017 1	15:10	Katelyn C Shober	n.a.
00394	pH in soil	SW-846 9045D modified	1	17026039403A	01/26/2017 2	21:00	Luz M Groff	1
00111	Moisture	SM 2540 G-1997	1	17027820003B	01/27/2017 1	13:29	Larry E Bevins	1



Analysis Report

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Quality Control Summary

Client Name: Stantec Group Number: 1756832

Reported: 01/31/2017 19:40

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL
	ug/kg	ug/kg
Batch number: Q170301AA Benzene Ethylbenzene Isopropylbenzene	Sample number N.D. N.D. N.D.	r(s): 8797796,8797799-8797801,8797808,8797811 25 50 50
Methyl Tertiary Butyl Ether	N.D.	25
Naphthalene	N.D.	50
Toluene	N.D.	50
1,2,4-Trimethylbenzene	N.D.	50
1,3,5-Trimethylbenzene	N.D.	50
Xylene (Total)	N.D.	50
Batch number: X170301AA Benzene	Sample number	r(s): 8797797,8797802-8797804,8797806,8797809-8797810
Ethylbenzene	N.D.	1
Isopropylbenzene	N.D.	1
Methyl Tertiary Butyl Ether	N.D.	0.5
Naphthalene	N.D.	1
Toluene	N.D.	1
1,2,4-Trimethylbenzene	N.D.	1
1,3,5-Trimethylbenzene	N.D.	1
Xylene (Total)	N.D.	1
Batch number: X170302AA	Sample number	r(s): 8797798,8797805,8797807,8797812-8797813
Benzene	N.D.	0.5
Ethylbenzene	N.D.	1
Isopropylbenzene	N.D.	1
Methyl Tertiary Butyl Ether	N.D.	0.5
Naphthalene	N.D.	1
Toluene	N.D.	1
1,2,4-Trimethylbenzene	N.D.	1
1,3,5-Trimethylbenzene	N.D.	1
Xylene (Total)	N.D.	1
	ug/l	ug/l
Batch number: Z170232AA	Sample number	r(s): 8797795
Benzene	N.D.	0.5
Ethylbenzene	N.D.	0.5
Isopropylbenzene	N.D.	0.5
Methyl Tertiary Butyl Ether	N.D.	0.5
Naphthalene	N.D.	1
Toluene	N.D.	0.5
1,2,4-Trimethylbenzene	N.D.	0.5

^{*-} Outside of specification

P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

⁽¹⁾ The result for one or both determinations was less than five times the LOQ.

⁽²⁾ The unspiked result was more than four times the spike added.



Analysis Report

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Quality Control Summary

Client Name: Stantec Group Number: 1756832

Reported: 01/31/2017 19:40

Method Blank (continued)

Analysis Name	Result	MDL	
	ug/l	ug/l	
1,3,5-Trimethylbenzene Xylene (Total)	N.D. N.D.	0.5 0.5	
	mg/kg	mg/kg	
Batch number: 17026A31A TPH-GRO N. CA soil C6-C12	Sample number N.D.	(s): 8797797,8797802-8797805,8797809-8797810,8797813	
Batch number: 17026A31B TPH-GRO N. CA soil C6-C12	Sample number N.D.	(s): 8797796,8797798-8797801,8797806-8797808,8797811-8797812	

LCS/LCSD

Analysis Name	LCS Spike Added ug/kg	LCS Conc ug/kg	LCSD Spike Added ug/kg	LCSD Conc ug/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: Q170301AA	Sample numbe	r(s): 87977	96,8797799-87	97801,8797	808,8797	811			
Benzene	1000	1062.03	1000	1043.38	106	104	80-120	2	30
Ethylbenzene	1000	1092.01	1000	1065.19	109	107	80-120	2	30
Isopropylbenzene	1000	1089.3	1000	1066.1	109	107	76-120	2	30
Methyl Tertiary Butyl Ether	1000	1057.07	1000	1070.12	106	107	72-120	1	30
Naphthalene	1000	1135.63	1000	1086.57	114	109	53-120	4	30
Toluene	1000	1100.41	1000	1087.04	110	109	80-120	1	30
1,2,4-Trimethylbenzene	1000	1123.13	1000	1085.88	112	109	74-120	3	30
1,3,5-Trimethylbenzene	1000	1123.82	1000	1080.53	112	108	73-120	4	30
Xylene (Total)	3000	3254.86	3000	3218.74	108	107	80-120	1	30
Batch number: X170301AA	Sample numbe	r(s): 87977	97,8797802-87	97804,8797	806,8797	809-8797	810		
Benzene	20	18.25	20	18.75	91	94	80-120	3	30
Ethylbenzene	20	18.09	20	18.9	90	95	80-120	4	30
Isopropylbenzene	20	18.15	20	19.15	91	96	76-120	5	30
Methyl Tertiary Butyl Ether	20	18.23	20	17.64	91	88	72-120	3	30
Naphthalene	20	17.94	20	17.33	90	87	53-120	3	30
Toluene	20	17.98	20	18.73	90	94	80-120	4	30
1,2,4-Trimethylbenzene	20	17.86	20	19.03	89	95	74-120	6	30
1,3,5-Trimethylbenzene	20	17.8	20	18.87	89	94	73-120	6	30
Xylene (Total)	60	53.65	60	56.06	89	93	80-120	4	30
Batch number: X170302AA	Sample numbe	r(s): 87977	98,8797805,87	97807,8797	812-8797	813			
Benzene	20	19.98	20	19.39	100	97	80-120	3	30
Ethylbenzene	20	20.25	20	19.66	101	98	80-120	3	30
Isopropylbenzene	20	20.75	20	20.04	104	100	76-120	3	30
Methyl Tertiary Butyl Ether	20	19.81	20	19.15	99	96	72-120	3	30
Naphthalene	20	19.92	20	18.67	100	93	53-120	6	30
Toluene	20	20.21	20	19.59	101	98	80-120	3	30
1,2,4-Trimethylbenzene	20	20.3	20	19.75	101	99	74-120	3	30
1,3,5-Trimethylbenzene	20	20.16	20	19.79	101	99	73-120	2	30

^{*-} Outside of specification

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⁽²⁾ The unspiked result was more than four times the spike added.

Analysis Report

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Quality Control Summary

Client Name: Stantec Group Number: 1756832

Reported: 01/31/2017 19:40

LCS/LCSD (continued)

			(00110	,					
Analysis Name	LCS Spike Added ug/kg	LCS Conc ug/kg	LCSD Spike Added ug/kg	LCSD Conc ug/kg	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Xylene (Total)	60	60.35	60	58.94	101	98	80-120	2	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: Z170232AA	Sample numbe	r(s): 87977	795						
Benzene	20	17.98	20	18.44	90	92	78-120	3	30
Ethylbenzene	20	17.56	20	18.04	88	90	78-120	3	30
Isopropylbenzene	20	17.85	20	18.68	89	93	80-120	5	30
Methyl Tertiary Butyl Ether	20	18.25	20	18.5	91	92	75-120	1	30
Naphthalene	20	15.72	20	15.85	79	79	59-120	1	30
Toluene	20	18.38	20	18.96	92	95	80-120	3	30
1,2,4-Trimethylbenzene	20	17.35	20	17.75	87	89	75-120	2	30
1,3,5-Trimethylbenzene	20	16.97	20	17.34	85	87	75-120	2	30
Xylene (Total)	60	54.48	60	56.37	91	94	80-120	3	30
	mg/kg	mg/kg	mg/kg	mg/kg					
Batch number: 17026A31A	Sample numbe	r(s): 87977	797,8797802-87	97805,8797	7809-8797	810,8797	813		
TPH-GRO N. CA soil C6-C12	11	10.55	11	9.94	96	90	58-120	6	30
Batch number: 17026A31B	Sample numbe	r(s): 87977	796,8797798-87	97801.8797	7806-8797	808.8797	811-8797812		
TPH-GRO N. CA soil C6-C12	11	10.55	11	9.94	96	90	58-120	6	30
	Std. Units	Std. Units	Std. Units	Std. Units					
Batch number: 17026039402A	Sample numbe	r(s): 87977	796-8797798						
pH in soil	7.00	7.01			100		95-105		
Batch number: 17026039402B	Sample numbe	r(s): 87977	799-8797809						
pH in soil	7.00	7.01			100		95-105		
Batch number: 17026039403A	Sample numbe	r(s): 87978	310-8797813						
pH in soil	7.00	7.05			101		95-105		
	%	%	%	%					
Batch number: 17027820003A	Sample numbe	r(s): 87977	796-8797799,87	97801-8797	7805				
Moisture	89.5	89.39			100		99-101		
Batch number: 17027820003B	Sample numbe	r(s): 87978	306-8797813						
Moisture	89.5	89.39			100		99-101		
Batch number: 17029820001A	Sample numbe		300						
Moisture	89.5	89.39			100		99-101		

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Analysis Report

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Quality Control Summary

Group Number: 1756832 Client Name: Stantec

Reported: 01/31/2017 19:40

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD DUP	RPD Max
	Std. Units	Std. Units		
Batch number: 17026039402A pH in soil	Sample number(s): 7.18	8797796-8797798 BKG: 7.20	P797539 0	3
Batch number: 17026039402B pH in soil	Sample number(s): 11.2	8797799-8797809 BKG: 11.22	8797800 0	3
Batch number: 17026039403A pH in soil	Sample number(s): 3.90	8797810-8797813 BKG: 3.90	8797810 0	3
	%	%		
Batch number: 17027820003A Moisture	Sample number(s): 18.41	8797796-8797799,8797 12.26	801-8797805 BKG: 40*	P797800 5
Batch number: 17027820003B Moisture	Sample number(s): 17.69	8797806-8797813 BKG: 18.44	8797806 4	5
Batch number: 17029820001A Moisture	Sample number(s): 20.49	8797800 BKG: 8797800 19.2	7*	5

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: UST Unleaded 8260+TMBs (Soil)

Batch number: Q170301AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8797796	63	68	74	89
8797799	86	89	94	111
8797800	68	82	86	96
8797801	4*	72	77	82
8797808	72	84	87	92
8797811	88	90	97	118
Blank	88	97	97	94
LCS	97	101	105	102
LCSD	94	99	103	102
Limits:	50-141	54-135	52-141	50-131

Analysis Name: UST Unleaded 8260+TMBs (Soil) Batch number: X170301AA

Darour man	Daton nambor ni no orien								
	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene					
8797797	102	107	100	100					
8797802	102	106	99	102					

^{*-} Outside of specification

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⁽²⁾ The unspiked result was more than four times the spike added.



Analysis Report

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Quality Control Summary

Client Name: Stantec Group Number: 1756832

Reported: 01/31/2017 19:40

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: UST Unleaded 8260+TMBs (Soil)

Batch number: X170301AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8797803	102	107	103	98
8797804	101	103	98	101
8797806	99	98	102	100
8797809	102	107	99	102
8797810	100	101	102	100
Blank	101	100	100	94
LCS	100	102	101	101
LCSD	99	97	101	100
Limits:	50-141	54-135	52-141	50-131

Analysis Name: UST Unleaded 8260+TMBs (Soil)

Batch number: X170302AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8797798	101	104	99	103
8797805	100	101	101	102
8797807	97	101	104	99
8797812	96	100	101	98
8797813	99	107	99	103
Blank	101	102	99	94
LCS	100	101	101	101
LCSD	100	102	100	100
Limits:	50-141	54-135	52-141	50-131

Analysis Name: UST Unleaded + TMBs 8260B

Batch number: Z170232AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8797795	95	100	98	92
Blank	95	99	99	93
LCS	94	100	98	96
LCSD	94	100	99	97
Limits:	80-116	77-113	80-113	78-113

Analysis Name: TPH-GRO N. CA soil C6-C12

Batch number: 17026A31A

	Trifluoro	toluene-F
8797797	76	
8797802	82	
8797803	87	
8797804	78	
8797805	84	
8797809	80	
8797810	74	

^{*-} Outside of specification

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Analysis Report

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Quality Control Summary

Client Name: Stantec Group Number: 1756832

Reported: 01/31/2017 19:40

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: TPH-GRO N. CA soil C6-C12

Batch number: 17026A31A

	Trifluorotoluene-F
8797813	83
Blank	89
LCS	95
LCSD	85
Limits:	50-142

Analysis Name: TPH-GRO N. CA soil C6-C12

Batch number: 17026A31B Trifluorotoluene-F 8797796 139 8797798 84 8797799 119 8797800 92 8797801 84 8797806 86 8797807 84 8797808 95 8797811 640* 8797812 106 Blank 97 95

Limits: 50-142

85

LCSD

P###### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

^{*-} Outside of specification

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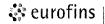
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COC #519182



Sample Administration Receipt Documentation Log

Doc Log ID:

173592

Group Number(s): 1756832

Client: Stantec

Delivery and Receipt Information

Delivery Method:

ELLE Courier

Arrival Timestamp:

01/19/2017 16:40

Number of Packages:

2

Number of Projects:

1

State/Province of Origin:

<u>PA</u>

Arrival Condition Summary

Shipping Container Sealed:

Yes

Sample IDs on COC match Containers:

No

Custody Seal Present:

Yes

Sample Date/Times match COC:

Yes

Custody Seal Intact:

Yes

VOA Vial Headspace ≥ 6mm:

Air Quality Samples Present:

N/A

Samples Chilled:

Yes

Total Trip Blank Qty:

2

Paperwork Enclosed:

Yes Yes Trip Blank Type:

N/A

No

Samples Intact: Missing Samples:

No

Extra Samples:

No

Discrepancy in Container Qty on COC:

No

Unpacked by Ayesha Ahmad (10877) at 14:36 on 01/20/2017

Samples Chilled Details

Thermometer Types:

DT = Digital (Temp. Bottle)

IR = Infrared (Surface Temp)

All Temperatures in °C.

Elevated Temp? Corrected Temp Therm. Type Ice Type ice Present? Ice Container Cooler # Thermometer ID Wet Υ Bagged Ν IR 8013596-IR 3.6 Wet Bagged Ν 2 8013596-IR 2.1

Sample ID Discrepancy Details

Sample ID on COC MH-A-16(5.0-5.5) Sample ID on Label MH-A-16 (3.0-3.5)

Comments



Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL Below Minimum Quantitation Level mq milligram(s) degrees Celsius mĹ milliliter(s) cfu colony forming units MPN Most Probable Number **CP Units** cobalt-chloroplatinate units N.D. none detected F degrees Fahrenheit ng nanogram(s) nephelometric turbidity units gram(s) NTU g IÚ International Units pg/L picogram/liter kilogram(s) RL Reporting Limit kg **TNTC** liter(s) Too Numerous To Count lb. pound(s) microgram(s) μg μĹ microliter(s) m3 cubic meter(s) milliequivalents umhos/cm micromhos/cm meg

< less than

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an

as-received basis.

Laboratory Data Qualifiers:

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

W - The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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Additional Data Qualifiers

Qualifier	Definition
В	Detection in the Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q4	MS/MSD Out of Range
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD